

TECHNOLOGY EDUCATION CURRICULUM FRAMEWORK

Connecticut State Department of Education
Division of Teaching and Learning
March 1998

TECHNOLOGY EDUCATION

By the end of Grade 12, students will know about the nature, power, influence and effects of technology, and will be able to design and develop products, systems and environments to solve problems.

PROGRAM GOALS

As a result of education in Grades K-12, students will:

- evaluate the effects of existing and emerging technologies on people and the environment over time;
- recognize the scope of technology and evaluate the impact and influence technology has on society, culture and the environment – past, present and future;
- develop and use strategies for adjusting to new technologies and changing interactions among science, technology and society;
- develop cognitive and psychomotor problem-solving skills through applied research, design, production, operation and analysis of technological systems (informational, physical and biological);
- safely and effectively use resources, processes, concepts and tools of technology;
- create devices for solving problems, using creativity and concepts of design and technology; and
- understand the influences of technology on consumer and career choices.

K - 12 CONTENT STANDARDS

- | | |
|--------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1. Economics | Students will understand the link between technology and the economy, and recognize that link as the force behind societal emergence and evolution. |
| 2. Technological Impacts | Students will understand the impact that technology has on the social, cultural and environmental aspects of their lives. |
| 3. Career Awareness | Students will become aware of the world of work and its function in society, diversity, expectations, trends and requirements. |
| 4. Problem Solving/Research
 and Development | Students will recognize technology as the result of a creative act, and will be able to apply disciplined problem-solving strategies to enhance invention and innovation. |
| 5. Leadership | Students will identify and develop leadership attributes and apply them in team situations. |
| 6. Materials and Processes | Students will know the origins, properties and processing techniques associated with the material building blocks of technology. |
| 7. Communications Systems | Students will understand and be able to effectively apply physical, graphic and electronic communications techniques in processing, transmitting, receiving and organizing information. |
| 8. Production Systems | Students will understand and be able to demonstrate the methods involved in turning raw materials into usable products. |
| 9. Transportation Systems | Students will understand transportation systems and the environments used to move goods and people, and the subsystems common to each. |
| 10. Enterprise | Students will demonstrate the techniques of enterprise and how they relate to product and service production, economics, human and material resources, and technology. |
| 11. Engineering Design | Students will be able to apply the engineering design process to achieve desired outcomes across all technology content areas. |